ISBN: 978-602-60991-1-2

Education Technology

Volume 1

UNNES 24th May 2017

COLLABORATIVE GRADUATED SCHOOLS CONFERENCE

UNNES

THE PROCEEDING OF

3RD INTERNATIONAL SEMINAR ON EDUCATION AND TECHNOLOGY (ISET)

ISBN: 978-602-60991-1-2

Published by:

Post Graduate Program
Universitas Negeri Semarang
Address: Jl. Kelud III, Semarang 50237
Jawa Tengah
Phone: (024) 8440516
Web: http://pps.unnes.ac.id

PREFACE

This Conference Proceedings volume contains the written version of all of the contributions presented during 3rd International Seminar on Education and Technology (ISET). The conference was taken place in Graduate Program from 10 universities, namely Universitas Negeri Semarang, Universitas Muhammadiyah Semarang, Universitas Kristen Satya Wacana Salatiga, Universitas PGRI Semarang, Universitas Negeri Gorontalo, Universitas Negeri Makasar, Universitas Negeri Yogyakarta, and Universitas Negeri Medan at 24 May 2017.

The proceedings of ISET came from researchers, practitionaers, private and public stakeholders, and educators from various field. ISET ks expected to provide acceleration of technological innovation that has the potential to accelerate the progress of industry and economics growth, solve the multidimensional social problems, and revolutionize the world of education in Indonesia.

We would like to thank all particlpans for their contributions to the Conference program and for their contributions to the Proceedings. Many thanks go as well to the all invited speakers. Our special thanks go to Rector of Universitas Negeri Semarang, Director of Post Graduate Program of Universitas Negeri Semarang, and all university collaborators (Universitas Muhammadiyah Semarang, Universitas Kristen Satya Wacana Salatiga, Universitas PGRI Semarang, Universitas Negeri Gorontalo, Universitas Negeri Makasar, Universitas Negeri Yogyakarta, and Universitas Negeri Medan).

The Proceedings Team,

Table of Contents

Mind-Mapping Plus Model In Developing Value-based Thematic Teaching Material for Primary School Students

Abd. Haling, Rohana, and Abd. Halik
State University of Makassar, Makassar, Indonesia
haling_93@yahoo.com

Abstract

This research aimed to develop thematic teaching material based on the first value for primary school students by using valid, practical, and effective Mind-Mapping Plus model. The research design was research and development with the work prodedures: (1) information collection, (2) planning, (3) development, (4) assessment, (5) product revision, and (6) dissemination and implementation. Teaching material product valued was thematic teaching material concept based on value using Mind-Mapping Plus model, guide book, and students' worksheet. The resulted product assessment was done through 3 steps that were validation assessment, practicality, and effectiveness. This research was held in 3 years. The subjects of field trials were the first grade teachers and students of 3 primary schools in Bone regency: SD Inpres 6/80 Kawerang (A accreditation), SDN 28 Usa (B accreditation); and SD 5/81 Macope (C accreditation). The data collection was done using questioner of teaching material validation, questioner of teacher and students' response, interview guide, and test of learning outcomes. The data in this research consisted of qualitative and quantitative data. The data analysis was done through validation, practicality, and effectiveness analyzes using descriptive analysis. The result of the research showed that the three products had met the criteria which were valid, practical, and effective to be disseminated and implemented in teaching and learning process.

Keywords: Mind-Mapping Plus, thematic teaching material, value education.

1. Introduction

Learners who are in I - III grades of primary school are the first grade classified as early age. In this ages, all aspects of children intelectual development grow and develop significantly. In general, the level of development is to perceive everything holistically and able to comprehend the correlation among concepts in simple way. Learning process really depends on concrete objects and direct experiences. Therefore, learning process in the first grade requires more sufficient comprehension by the teachers, not only on professional competence aspect related to basic competence, but also psychology aspect of children development.

Implementation of concrete consepts in the first grade is very important as it affects the brilliance of learners' future. The learner's experience when they are in the first grade becomes the basics of their comprehension development in science. The teachers in these recent eras must be able to provide teaching service professionally so the learners can grow and develop based on the competence they have. When the students encounter difficulties in learning which are caused by the teacher's teaching service that is not appropriate, it may become obstacles for the learners to compete with other learners. This confusion in implementing concepts in the first grade will lead to negative impacts for the learners' achievement.

Based on 2006 primary school curriculum or what is known as School Level Curriculum[8] and 2013 curriculum[13], the learning and teaching activity in class I - III of primary school is conducted by thematic approach. The teaching with thematic approach based on a techer's creativity for developing teaching material. The ability to develop teaching material is really needed in order to integrate subjects or basic competences of subjects taught as what is expected in curriculum.

Government regulation No. 19 Year 2005 Article 20 states that teachers are expected to develop teaching material by themselves. The teacher's ability to develope and create teaching material will inspire students to perform more creatively in learning. A teacher's inability to develope teaching material in thematic learning should be noticed particularly by local education authorities. Teaching material that is merely in the form of textbook is not adequate to meet the holistic elements in learning process. Teaching material in textbook is deficient and need to be developed based on the condition of learners and their situation, particularly in teaching the first grade students.

Some measures have been taken by the goverment in order that the teachers are able to develop teaching material especailly for the first grade of primary school. Training a large number of teachers is an activity that is usually conducted in order to make a great positive change on the teachers' quality. Further, fund from school operational assistance is sufficient for funding the improvement of teachers' professionality. By the resources and the fund, the teachers are ought to be capable in developing teaching material appropriately. Moreover, the substance of teaching material for the first grade is simpler compared with the higher class teaching material. However, the teachers' capability in developing teaching material, particularly the teachers of the first grade in primary school, has not improved and still far from the expectation. Generally, instead of implementing contextual tecahing approach based on the curriculum as what is expected, the teachers are still implementing textual teaching approach.[16]

However, in fact, most of the teachers missunderstand about the implementation of thematic approach that is by using textbooks labelled as thematic material but the content is not suitable with the philosopy of thematic material. The teachers' motivation to develop material by themselves is decreased by the use of textbook as the only teaching material source that contains merely cognitive learning aspect. Offers of textbook from many publisher also make the teachers to be less motivated as they tend to choose the more accessible ones.

Change of learning system particularly in the first grade of primary school as the result of curriculum change, leads to another problem for the teachers as the front guard in education. Teaching method of the teachers based on curriculum implemented prior to School Level Curriculum is subject-based approach. It means that the teachers conduct their teaching based on the schedule they have planned before. This teaching approach has become their habit so when they are required to implement another approach, they encounter some difficulties, such as; (1) The difficulty to find easier way to create coherency among subjects or basic competences, (2) the difficulty to find linkage of concepts that associate two or three

basic competences with different subjects, and (3) the difficulty to implement method that retain thematic approaches during teaching process. As a result, the only way teachers can do is following the text books. These difficulties cause the teaching process dominated by subject-based approach. Hence, it is difficult to implement thematic approach.

The researchers are also concerned about teachers who depend only on textbooks. Learners are still unstable as they keep growing up along with their maturity and environment. They need new issues related to their way of life as children. Although teachers rationally know that learning process must be related to the environment of learners, they are stuck at the stage of teaching material development that requires an understanding of basic competence analysis. Moreover, thematic approach becomes obstacle in mostly teaching practices of primary school, particulary in the first grade.

One of creative efforts to facilitate teachers implementing thematic approach in developinjg learning material in first grade is *Mind-Mapping* model. *Mind-Mapping* model will encourage and challenge teachers to continuously develop learning material based on the content and context. Reigeluth (1992) suggested that the design of teaching materials should modify one of the standard blue prints that best suits the particular needs of the lesson[15]. A model of learning or teaching materials can be an inspiration for someone to design a new model according to the characteristics of the subject and the learner. In this study, the researchers will recreate *Mind-Mapping* model that has been used in the integrated learning concept in curriculum 2006 and 2013 and change it into one of the teaching materials development models of first grade named *Mind-Mapping Plus Model*.

1.1. Value-Based Teaching Material

In this study, value-based teaching material is defined as a way of thinking and acting to develop thematic learning material in the first grade, which is based on the praised moral values such as honesty, tolerance, cooperation, discipline, mutual respect, life sparingly, and responsibility. In developing learning material, teacher must include explicitly one or more moral values to be familiarized by students both inside and outside the school. Every applicable curriculum covers the principle of the balance between cognitive, affective, and psychomotoric domain. Problems may arise when teacher implements lesson plan in teaching process. Teacher usually focuses only on cognitive aspect of learning material on the textbooks without giving more attention to the moral aspect. This phenomenon is caused by conventional paradigm that assumed the learner's achievement is seen through their high or low scores after test both in writing and orally. This phenomenon can be minimalized by using *Mind-Mapping Plus* model in developing learning material of first grade.

The value-based teaching material as a result of material development contains moral values. Teaching material containing knowledge is developed by selecting moral values consisted of personality, social, religious, and other practices based on the content of developed basic competence Therefore, instead of merely depending on textbooks, teachers will integrate teaching and character building that form confident, responsible, and well-behaved students.

1.2. *Mind-Mapping* Model

Mind-mapping is a creative way for every learner to generate ideas, record what is learned, or plan new tasks (Silberman, 1996). Mind mapping is an excellent way to generate and organize ideas before starting to write (Hernowo, 2003). Asking learners to create mind maps allows them to clearly and creatively identify what they have learned or what they are planning. Alamsyah (2009) stated, "*explained that Mind maps work well as their visual design enables students to see the relationship between ideas, and encourages them to group certain ideas together as they proceed*"[3].

Tony Buzan, an English man had invented the *Mind-Mapping* theory. Furthermore, Buzan (2008) argued that in the mind map, the work system of the brain is regulated naturally. Automatically the work is in accordance with the naturalness of human thinking. The mind map keeps the human brain well explored, and works according to its function. As it is known that the human brain consists of the right and left brain. In the mind map, the two brain systems are activated according to their respective portions. The brain works for visual recognition to get the most out of it (Buzan, 2008). The information from *Mind-Mapping* is easy to remember with visual stimulation from a combination of colors, images, and curved branches. Such situation is appropriate with first grade students of primary school. He also said that a *Mind Map is a powerful graphic technique which provides a universal key to unlock the potential of the brain. It harnesses the full range of cortical skills – word, image, number, logic, rhythm, colour and spatial awareness.* ('www.tonybuzan.co. *28-03-2016*).

According to DePorter dan Hernacki (2008), *Mind-Mapping* uses visual and sensory reminders in a pattern of related ideas, such as road maps which are used for learning, organizing, and planning. Mind-Mapping can generate original ideas and trigger easy memories[20]. In line with this, Wycoff argued that *Mind-Mapping* is a magical opening tool of mind. The privileges of *Mind-Mapping* in learning process are (1) students can analyze ideas, record a lesson ot plan new research so they can clearly and creatively identify what they have learned and what they are planning (2) Eliminate boredom of writing in the traditional way, so the brain will quickly digest and remember the records that have been made.[12]

The result of the research shows that human brain does not store information in neatly lined neuronal cells but is collected on nested branching cells which, when viewed at a glance, will look like branches of a tree as well as the model of a Mind-Mapping. Basically, Mind-Mapping is very simple, simply write to follow the direction in which the brain to think, what comes, what is remembered in the form of streaks or records that relate the connections. The radiant thinking starts from the center as the focus and spreads to the edge. Mind-Mapping model can refresh brain by being a tool for expressing all ideas and thoughts, and problems that are difficult to be recorded and burden the subsconscious mind. So the concept of Mind-Mapping works in the way our brains work. (Jensen, Eric & Karen Makowitz. 2002)

The results of *Mind-Mapping* describe a person's mindset orderly, full of colors, curves, symbols, words and images corresponding to a simple, basic, natural, and appropriate

sequence of workings of the brain. *Mind-Mapping* is not a difficult and expensive thing to do, it only requires the willingness to develop the material. In a *Mind-mapping*, several components to be considered are the main issues, sub-issues, and proportionality

The mind-mapping model, for example, illustrates *Lingkungan Bersih dan Sehat* or *Clean and Healthy Environment* as the topic. Then three basic competencies of different subjects (Indonesian, Science and Cultural Arts) are selected. The teaching materials which are related and integrated to each other basic competence determined.

When it is carefully examined, it can be seen that these materials are closely related even some of them are similar, such as the word *makan* in Indonesian subject, the word becomes the discussion in Science, and it closely relates to a song in Cultural Arts subject. Hence, this model can be effectively implemented in the primary school especially for the first grade and other classes that use thematic approach.

1.3. Thematic Learning

Thematic learning can be interpreted as a learning activity by integrating the materials of several subjects into one theme / topic of discussion. According to Sutirjo dan Sri Astutik Mamik (2004), thematic learning is an attempt to integrate knowledge, skills, values, or learning attitudes, and creative thinking by using themes. From these statements, it can be emphasized that thematic learning is undertaken as an effort to improvethe quality of education, especially to offset the density of curriculum materials. Besides, thematic learning will provide integrated learning opportunities that emphasize more on students' participation / involvement in learning. The integration in this learning can be seen from aspects of the process or time, aspects of the curriculum, and aspects of teaching and learning.

Thematic learning is conducted using the principle of integrated learning. Integrated learning uses a theme as a unifying learning activity that combines several subjects at once in a one-on-one encounter, to provide a meaningful experience for learners. Learners can understand the various concepts they learn through direct experience and connect it with other concepts that have been mastered. The integrated thematic learning is organized based on a combination of integration processes across multiple subjects.

Thematic learning has characteristics as disclosed in *www. pppg tertulis.or.id.* as follows; (1) learner-centered, (2) it gives direct experience to the learners, (3) the separation of subjects is not clearly seen, (4) it provides the concept from various subjects in a single teaching and learning process, (5) flexible, (6) the learning outcomes can be developed based on learners' interest and need.

2. Methods

2.1. Participants

The subjects of product testing were: (1) the expert of field of study and teaching development, (2) teachers, (3) students. The trial conducted in three primary schools whose

different accreditation of A, B, and C in Bone regency. Location selected based on the fact that the schools are in different accreditation level.

2.2. Instrument

To collect the data, the researchers used (1) observation sheet, (2) questionnaire, (3) interview guidelines, (4) learning outcomes test, and (5) analysis of documentation. The collected data were analyzed descriptively. As a basis for decision-making, criteria used were very well, good, sufficient, deficient, and not good.

2.3. Procedures

This research is research development adapting the procedural model of Borg & Gall (2003). Procedural model is a descriptive model that uses the flow of procedural steps that must be followed to produce a particular product (Setyosari 2010). This research aims to produce thematic teaching materials based on values with *mind-mapping* model. The development steps in this research were (1) collection of initial information, (2) planning, (3) development of the product, (4) product testing, (5) product revising, and (6) wide spreading and implementation. Through the procedures, valued-based thematic teaching materials were produced with valid, practice, and effective *Mind-Mapping Plus* Model.

3. Results

The results of the research described in this study are the collection of initial information, planning, and development.

3.1. Collection of Initial Information

The first stage in this research was collecting the initial information. It aimed to indentify the needs of teaching material development adapting *Mind-Mapping* model. There were five activities done in this stage, as follows: (a) conducting survey about implementation of value-based learning in school, (b) identifying basic competences and material of Science subject through review of curriculum content, (c) interviewing the teachers in primary school, (d) reviewing character values, and (e) spreading the questionnaire among policy makers, teachers, and guides of study field to obtain the learning program needed.

The result of first survey and interview with teachers and policy makers about the implementation of value education in three primary schools; SD Inpres 6 80 Kawerang Kec. Cina with A grade accreditaion primary school with B grade accreditation SDN 28 Usa Kec. Palakka; and primary school with C grade accreditation SD Inpres 5 81 Macope Kec. Awangpone showed that value-based learning had been conducted in every class from first grade to sixth grade, but it had not worked appropriately. The interview result with teachers and head master on Saturday, April 8th 2017 showed that value-based learning had been conducted in every class from first grade to sixth grade, but it was obstructed by

unavailability of structurally constructed teaching material that can be used by teachers, especially thematic learning based on commendable values to students in primary school.

In order to tackle the problem, the researchers identified the contents of first grade learning through reviewing content of 2006 curriculum as the basis to determine the basic competences, subject matter, and character values for the need of developing teaching material to first grade students in primary school. The result of curriculum analysis showed that first grade students got topic "Clean Environment" with four basic competences for the need of developing teaching material adapting mind-mapping model. The basic competences were: (1) Science: identifying the needs of body to grow healthy and strong; (2) Indonesian Language: reading syllables and words aloud with the correct pronunciation; (3) clean and healthy environment; and (4) reciting children's song.

The four basic competences were specified into some subject matters and sub-subject matters and several topics of *mind-mapping*. These topics consisted of supporting topics and value-based topics. Every topic was handled by teachers according to the depth of content material, students' ability, and available learning source/media in the school. The selection and arrangement of mind mapping topics were based on the easiest to hardest learning principle, the closest children to the far ones, the simplest to the most complex, the concrete to the abstract, therefore the students' learning experiences became more meaningful. The meaningful learning experience would develop good character, encourage mastery of concepts, increase problem-solving ability, and form creativity.

3.2. Planning Stage

This stage was a process of planning draft of value-based thematic teaching material based on 2006 curriculum adapting *mind-mapping* model. The teaching material produced was arranged based on 4 basic competences according to result of needs analysis. Moreover, the structures of teaching material development were title, introduction, table of contents, discussion, conclusion, assignment, and evaluation. The development of guidebook was arranged into the structure: identity, general instruction, specific instruction, eligibility of content, feasibility of presentation, language and graphic feasibility. The student worksheet developed into structures; identity, guidelines, eligibility of content, feasibility of presentation, language and graphic feasibility.

In order to produce teaching materials and valid and practice supporting device, the instrument of teaching material validation, guidebooks and student worksheet, instrument of testing limited to the intended target users were also produced. The products content were then validated by the expert of field of study and design expert. Validation aimed to evaluate the quality of content and construction of teaching material and devices through response, critics and suggestion for product refinement from authorized experts. As the evaluation criteria, scale 1-5 was used (very well, good, sufficient, deficient, and not good)

3.3. Development Stage

The target of this research was to produce valid, practice, and effective teaching material, guideline book, and student worksheet. The content and construction of product was testedby the expert and guide of education. It aimed to evaluate the quality of teaching material and its supporting device, as well as to obtain suggestion for product refinement.

In the validation process, the resulted products were handed to the expert and guide of study based on their fields in conjunction with the instrument of validation using 1-5 scale (very well, good, sufficient, deficient, and not good). Every item was considered valid when it was in the category of "good or very well". The teaching material components categorized as "not valid" would be revised based on the critics or comments in the prepared instrument columns.

3.3.1. The Result of Teaching Material Validation

Teaching material product was evaluated by two experts and a subject guide. An expert evaluated the feasibility of content, presentation, language, and graphics. Based on the validator evaluation result, the textbook produced was 3,60. When it is adjusted to the criteria in the category of "very good", it means the teaching materials products are worthy of use on research goals. For more details, the result of teaching material product can be seen in the following table 5.1:

Table 5.1 The Validation Result of Textbook

No	Component	Average score	Category
1	Structure	3,60	valid
2	Content	3,60	valid
3	Presentation	3,80	valid
4	Language	3,80	valid
5	Graphics	3,60	valid
	Average	3,68	valid

In the table 5.3, the textbook developed is categorized as "valid". The indication of evaluation on textbook consisted of feasibility of structure which includes: systematics, rationalization, material upgrading, encouraging curiosity, and not nuanced deviations from moral values. The feasibility of content indications include: understanding of concepts, the accuracy of matter, material awareness, encouraging curiosity, and not nuanced deviations from moral values. The feasibility of presentation indications include: encouraging the active involvement of learners, interrelationships between parts, alignment between sections, alignment between concepts, contextual presentation. The feasibility of language indications include: Readability, clarity of information, conformity with Indonesian rules, and the use of language effectively and efficiently. The feasibility of graphics indications include: layout and illustration. Every sub-aspects has met the eligibility criteria and makes it easy for the user's goal.

3.3.2. The Result of Guidebook Validation

In order to evaluate the feasibility of teachers' guidebook, validator evaluated four aspects includes: eligibility of content, feasibility of presentation, language, and graphics. According to experts and subject guides' evaluation, the guidebook is in the category of "valid". The details of validation result are presented on the following table 5.2:

Table 5.2 The Validation Result of Guidebook

No	Aspect	Average Score	Category
1	Content	3,60	Valid
2	Presentation	3,60	Valid
3	Language	3,70	Valid
4	Graphics	3,60	Valid
	Average	3,63	Valid

Table 5.2 shows that the guidebook meets the demands of potential users. Content eligibility indications include; student-oriented book material, sufficient materials to guide teachers in delivering materials, material accuracy, encouraging learning stages to develop laudable values and media usage clearly. Feasibility of presentation indications include: demands, systematics, easy to understand; material does not cause moral perversion; linkages between sections, subsections, and concepts, learning stages; the material stages are clear and can be applied with clear systematics. Feasibility of language indications include: the use of standard language, easy to understand and correct use of terms. Feasibility of graphics with indications: layout and variations of interest. Each of these indications meets the criteria so that it is feasible to be used on research objectives.

3.3.3. The Result of Student Worksheet Validation

In order to evaluate the feasibility of Student Worksheet (LKS), validatore gave scores on the aspects including: the feasibility of content, language, presentation, and graphics. Based on the evaluation by the experts and practicers, the developed student worksheet was categorized as "valid". The details of validation result are presented on the following table 5.4

Table 5.4 Validation Result of Students Worksheet

No	Component	Average score	Category
1	Content	3,73	Valid
2	Language	3,67	Valid
3	Presentation	3,83	Valid
4	Graphics	3,33	Valid
	Average	3,64	Valid

Table 5.4 shows that the developed student worksheet was in the category of "valid". The experts evaluated the eligibility of content, feasibility of language, presentation, and graphics and they gave "very well" score. The indications of content eligibility include: conformity between core (KI) and basic (KD) competencies; conformity with students' needs;

conformity with teaching materials, truth substance of matter, usefulness, and conformity with the laudible value for the child. The indicators of presentation feasibility include: clarity of purpose; the order of presentation; motivation; interactivity; and completeness of information. The feasibility of language indicators include: legibility, clarity of information, conformity with standard Indonesian rules; and the effective use of language. The indicators of graphics feasibility include: the use of font type and size, layout, graphics, and design.

4. Discussion

There were three products tested for validity, i.e. teaching materials, guidebooks, and student worksheet. In order to know the validity of the developed products, the assessment was given to the three prototypes. The results of the analysis on aspects of the product were that the four products produced have been approved by the experts. The assessment of aspects of the product was in "very well" category. The process of determining product validity, embracing the view of Borg and Gall (1993) showed that the results of the assessment by experts may be used as a basis to determine the validity of a product.

The validity of the product development was carried out by following Borg & Gall (2003) model, which was to analyze the needs, planning, development, and testing of the product, and finally the finalization of teaching materials product. According to Marni & Hacklin (2005) testing the validity of the curriculum product by following the established steps should be done before it is used.

The target of developing teaching materials is to provide students with knowledge in developing concept maps. According to Silberman (1996), *mind-mapping* is a creative way for students to generate ideas, record what has been learned, or plan new tasks. Mind mapping is an excellent way to generate and organize ideas before start writing (Hernowo, 2003). Asking learners to create mind maps allows them to clearly and creatively identify what they have learned or what they are planning.

Buzan (2008) argues that in mind maps, the work system of the brain is regulated naturally. Automatically the work is in accordance with the naturalness of human thinking. The mind map keeps the human brain well explored, and works according to its function. As it is known that the human brain consists of the right and left brain. In the mind map, the two brain systems are activated according to their respective portions. The brain works for visual recognition to get the most out of it (Buzan, 2008). The information from *Mind-Mapping* is easy to remember with visual stimulation from a combination of colors, images, and curved branches. Such situation is appropriate with first grade students of primary school. He also said that a *Mind Map is a powerful graphic technique which provides a universal key to unlock the potential of the brain. It harnesses the full range of cortical skills – word, image, number, logic, rhythm, colour and spatial awareness* (www.tonybuzan.co. 28-03-2016).

The results of *Mind-Mapping* describe a person's mindset orderly, full of colors, curves, symbols, words and images corresponding to a simple, basic, natural, and appropriate sequence of workings of the brain. *Mind-Mapping* is not a difficult and expensive thing to do

it only requires the willingness to develop the material. In a *Mind-mapping*, several components to be considered are the main issues, sub-issues, and proportionality.

Producing teaching materials using mind-mapping model in thematic learning is expected to be used by the students to determine the interrelated and intergrated teaching materials. These teaching material product and its devices are expected to be used by teachers and students as the guide in learning in an attempt to get students create mind maps so they can identify what they have learned or they are planning in a clear and creative way.

5. Conclusions

The results of data analysis show that the value-based thematic teaching material adapting *mind-mapping plus* model, guidebook, and student worksheet are "appropriate" to be implemented to the fifth grade students of primary school. It means that the value-based thematic teaching material is in line with the characteristics and needs of students and it provides convenience for the target research. The teaching material was developed with systematics include: (a) title, (b) introduction, (c) concept understanding, (d) content exposure, (e) language, and (f) integration of character values. The produced teaching material developed the supporting device which were guidebook and student worksheet.

The results of this research are expected to meet the demand for the provision of value-based thematic teaching materials for the learning needs of the first grade primary school students, as well as one effort in exploring a model of development of innovative teaching materials that can provide academic contributions to improve the practice of virtue values in the students in primary school.

6. References

[1] Abdul Madjid dan Andayani, D. 2011. *Pendidikan karakter perspektif Islam*. Bandung: Remaja rosdakarya.

[2] Alamsyah, Maunzal (2009). Kiat Jitu Meningkatkan Prestasi Dengan Mind Mapping. Yogyakarta :MitraPelajar

[3] Astutik, Sri (2008) dengan judul "Meningkatkan Hasil Belajar Murid dengan Model Siklus Belajar (Learning cycle 5E) Berbasis Eksperimen pada Pembelajaran Sains di SDN Patrang 1 Jember.

[4] Bobby De Porter, Mike Hernacki. 2003. (*Quantum Learning: Membiasakan Belajar Nyaman dan Menyenangkan*. Kaifa: Bandung.

[5] Borg, W.R. & Gall, M.D. 1983. Educational Research. an introduction. (third ed.) New York. David McKay.

[6] BSNP. 2006. Panduan Kurikulum Tingkat Satuan Pendidikan. Jakarta: BSNP.

[7] Buzan, Tony. 2008. *Mind Map Untuk Meningkatkan Kreativitas*. Gramedia Pustaka Utama: Jakarta

[8] Buzan, Tony. (2010) Buku Pintar Mind Mapping untuk Anak. Jakarta : PT Gramedia Pustaka Utama

[9] Gall, J. Borg W., & Gall, M. 2003. Educational research: An introduction (7th ed.) Pearson Education

[10] Hermawan (2008). Quantum Writing: Cara Cepat nan Bermanfaat untuk Merangsang Kreativitas Penulis Mandiri. Bandung: MLC

[11] Jensen, Eric & Karen Makowitz. 2003. *Otak Sejuta Gigabite: Buku Pintar Membangun Kecerdasan Super*. Kaifa. Bandung

[12] Joyce Wycoff. 2002. Mengasah Sepsi Kreatif dengan Pemetaan Pikiran (terj.) Penerbit Kaifa

[13] Kemendiknas. 2011. Bahan Pelatihan Implementasi Kurikulum 2013. Jakarta: Pusbang Tendik

[14] Marx C. & Hacker F. 2005. Design, Product Development, Innovation: all the same or different? A short discussion on terminology. Journal of Engineering Design

[15] Reigeluth, Charles M. 1992. Instructional Design Strategies and Tactics. Educational Technology Publications. New Jersey: Englewood Cliffs.

[16] Republik Indonesia. 2005. Peraturan Pemerintah RI, Nomor 19 tahun 2005 tentang standar nasional pendidikan. Jakarta: Depdiknas.

[17] Sugiyono. 2013. Metode Penelitian Pendidikan dan Pengembangan. Jakarta: Kencana Prenadamedia Group

[18] Silberman, M.L. (1996). Active Learning: 101 Strategies to Teach Any Subject. Boston: Allyn Bacon